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2831

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/780,021
Filing Date: February 17, 2004
Appellant(s): ARZATE ET AL.

Carmen Pili Estrom
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 9, 2006 appealing from the Office action mailed May 06, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. After further consideration of applicant's arguments, the 35 USC 112, second paragraph rejection of claims 33-56 have been withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

| | | |
|--------------|---------------|---------|
| 2002/0003047 | Osornio et al | 01-2002 |
| 6,103,317 | Asai et al | 08-2000 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

a) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

b) This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

c) Claims 33-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osornio et al (Pat Num 2002/0003047, herein referred to as Osornio) in view of Asai et al (Pat Num 6,103,317, herein referred to as Asai). Osornio discloses a telephone lead in cable (Figs 1-3) for voice, data, and video (VVDL) transmission services (abstract). Specifically, with respect to claim 33, Osornio discloses an underground telephone lead-in cable (10, Fig 3) comprising a rectangular outer cover having a geometrical shape comprising thermoplastic material (16, paragraph 12), wherein the cable (10) has equidistantly in inner structure a plurality of transmission circuits (14 and 18 & 11) comprising self-supporting members (18 & 11), which are formed by two conducting elements made of metal (Page 1, paragraph 12, lines 1-4), wherein said members (18 & 11) are respectively arranged at the opposite ends (left and right ends), in parallel, and in turn are diametrically opposed to the main transmission circuit (14), wherein the cable (10) comprises a core (14, i.e. main transmission circuit) formed by a pair of stranded

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conductors (12 & 19) placed at the center of the rectangular structure outer jacket (16) of the cable (10), wherein said conductors (12 & 19) are respectively insulated by a thermoplastic compound layer (13); and an extruded cover (16) reinforced with thermoplastic material forming the lead-in cable (10, Page 1, paragraph 12, lines 5-8).

With respect to claim 34, Osornio discloses that the two self-supporting members (11 & 18), are made of metal (Page 1, paragraph 12, lines 1-4). With respect to claim 35, Osornio discloses that the two self-supporting members (11 & 18), are covered by polymers (i.e. embedding thermoplastic materials with flame retardant material, Page 2, paragraph 15). With respect to claim 36, Osornio discloses that the polymers may be polyethylene or polypropylene (Page 1, paragraph 12). With respect to claim 37, Osornio discloses that the main circuit (14) formed by a stranded pair of balanced circuits (12 & 19) presents a characteristic impedance of 100 ohms (Page 1, paragraph 12, lines 5-8). With respect to claim 39, Osornio discloses that the stranded pair (12 & 19) is covered with an extruded thermoplastic cover (16) that may be flame resistant reinforced (i.e. embedding thermoplastic materials with flame retardant material, Page 2, paragraph 15). With respect to claim 40, Osornio discloses that the two self-supporting members (11 & 18) are made of metal (Page 1, paragraph 12, lines 1-4). With respect to claim 41, Osornio discloses that the two self-supporting members (11 & 18), are made of metal also act as additional circuit with regard to the core (14) enhancing the transmission of voice signals because between them they constitute a circuit oriented to the transmission of analog signals (Page 1, paragraph 12, lines 1-4). With respect to claim 42, Osornio discloses that the main circuit (14) of the stranded

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pair (12 & 19) permits the transmission of digital signal data at speeds of 155 Mbps (Page 2, paragraph 15, lines 1-3). With respect to claim 43, Osornio discloses that the main circuit (14) of the stranded pair (12 & 19) is stranded with a smooth surface at diameters of to 0.5-0.64 mm (Page 2, paragraph 14, lines 5-7). With respect to claim 44, Osornio discloses that cable (10) permits to span distances of up to 150 meters (Page 2, paragraph 15, lines 7-8), wherein the distance between each strand of the conductors (12 & 18) permits to reduce importantly the diaphonic effects caused by the nearness of other element (11 & 18) emitting electromagnetic signals and also reduces the loss of energy to the other circuit (Page 2, paragraph 15, lines 19-28). With respect to claim 45, Osornio discloses that the each one of the conductors (12 & 19) in the main core (14) are insulated with a thermoplastic layer (13). With respect to claim 46, Osornio discloses that the insulation (13) is applied continuously and highly uniform in such a way that the concentricity of the wall of insulating material with regard to the conductor higher than 90% and can be colored for identification purposes (Page 2, paragraph 15, lines 8-12). With respect to claim 47, Osornio discloses a cable (10) further includes a thin thermoplastic sleeve (15) as protecting element against melting heat up to 240°C (Page 1, paragraph 12, 13-15). With respect to claim 49, Osornio discloses that the conductors (12 & 19) of the main core (14) and the self- supporting members (11 & 18) of the metal cables are elements based on copper or alloys submitted to thermal treatments (Page 1, paragraph 14, lines 10-23). With respect to claim 50, Osornio discloses that conductors (11 & 18) are subject to thermal treatments (Page 1, paragraph 14). With respect to claim 51, Osornio discloses that the thermal treatment is

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between 45-550°C (Page 1, paragraph 14). With respect to claim 52, Osornio discloses a stranded pair (14) is further comprises a thin thermoplastic sleeve (15) comprising a temperature resistant material and applied helicoidally or longitudinally onto the protective element (Page 2, paragraph 14). With respect to claim 54, Osornio discloses that the cable (10) comprises conductors (12 & 19) as components of the core (Figs 1-2), wherein the conductors (12 & 19) are in the range of 16-26 AWG (i.e. 24 AWG, Paragraph 15 on page 2). With respect to claim 55, Osornio discloses that the cable (10) further comprises trimmed edges (20) and recesses (at 17) to permit installation of the cable (10, Page 2, paragraph 16). With respect to claim 56, Osornio discloses an underground telephone lead-in cable (10, Fig 3) comprising a rectangular outer cover having a geometrical shape comprising thermoplastic material (16, paragraph 12), wherein the cable (10) has equidistantly in inner structure a plurality of transmission circuits (14 and 18 & 11) comprising self-supporting members (18 & 11), which are formed by two conducting elements made of metal (Page 1, paragraph 12, lines 1-4), wherein said members (18 & 11) are respectively arranged at the opposite ends (left and right ends), in parallel, and in turn are diametrically opposed to the main transmission circuit (14), wherein the cable (10) comprises a core (14, i.e. main transmission circuit) formed by a pair of stranded conductors (12 & 19) placed at the center of the rectangular structure outer jacket (16) of the cable (10), wherein said conductors (12 & 19) are respectively insulated by a thermoplastic compound layer (13); a thin thermoplastic sleeve (15) as protecting element against melting heat up to 240°C

(Page 1, paragraph 12, 13-15) and an extruded cover (16) reinforced with thermoplastic material forming the lead-in cable (10, Page 1, paragraph 12, lines 5-8).

However, Osornio doesn't necessarily disclose the cable comprising a swelling layer surrounding said core electrostatically deposited as moisture protection element (claims 33 & 56), nor the swelling powder made of conventional poly (sodium acrylate) (claim 38), nor a filler swelling material deposited electrostatically arranged between the area around the thin sleeve and the protective of thermoplastic material forming the body of the lead-in core of the stranded conductors as moisture element (claims 39, 48 & 53).

Asai teaches a water swellable material, which is cost efficient, has good wetting on and adhesion to many surfaces, and may be applied to cable components, such as wires, rods, tubes, and strength members, to provide the cable with water blocking properties (Col 1 & 3, lines 1-13 & 11-29). Specifically, with respect to claims 33 & 56, Asai teaches a water swellable material composition, that may be placed on cable components such as conductive wires and outer coverings or wrappings (Cols 1 & 8, lines 1-10 & 42-50, respectively). With respect to claim 38, Asai teaches a water swellable material composition, which may be poly(sodium acrylate) homopolymer compound (Col 5, lines 9-15 & 26-40) and may be applied through electrostatic means on a cover layer on the stranded pair during the extrusion of the cover layer (Cols 8-9, 61-67 & 1-8, respectively). With respect to claims 39, 48, & 53, Asai teaches water swellable material composition may be a filler swelling material deposited electrostatically arranged between the area around the thin sleeve and the protective of

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thermoplastic material forming the body of the lead-in core of the stranded conductors as moisture element (material may be placed on cable components such as conductive wires and outer coverings or wrappings; Cols 1 & 8, lines 1-10 & 30-50, respectively).

With respect to claims 33, 39, 48, 53, & 56, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the telephone lead in cable of Osornio to comprise a poly(sodium acrylate) homopolymer compound water swellable material coated on the electrical components as taught by Asai because Asai teaches that such a material is cost efficient, has good wetting on and adhesion to many surfaces, and may be applied to cable components, such as wires, rods, tubes, and strength members, to provide the cable with water blocking properties (Col 1 & 3, lines 1-13 & 11-29) and since it has been held to be within general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

With respect to claims 39, 48, 53, & 56, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the telephone lead in cable of Osornio to comprise a water swellable material electrostatically coated on the electrical components as taught by Asai because Asai teaches that such a material is cost efficient, has good wetting on and adhesion to many surfaces, and may be applied to cable components, such as wires, rods, tubes, and strength members, to provide the cable with water blocking properties (Col 1 & 3, lines 1-13 & 11-29) and since it has been held that the presence of process limitations in

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product claims, in which the product doesn't otherwise patentably distinguish over the prior art, cannot impart patentability to that product.

(10) Response to Argument

Appellant's arguments filed January 9, 2006 have been fully considered but they are not persuasive. Specifically, the appellant argues the following:

- A) Claims 33, 37, and 42 are definite and therefore the rejection under 35 USC 112, second paragraph is improper.
- B) The rejection of claims 33-56 should be withdrawn because the prior art taken individually or together doesn't disclose all of the elements of the present invention.
- C) The rejection of the claims under 35 USC 103(a) should be withdrawn because there is no motivation or suggestion to combine the prior art and arrive at the claimed invention.
- D) The rejection of claims 33-56 should be withdrawn because the prior art taken individually or together doesn't provide a reasonable expectation of success.
- E) Asai et al fails to provide a motivation for combining with Osornio et al because Asai et al teaches away from the present invention.
- F) One of ordinary skill in the art would not be motivated to pick and choose the claimed element out of a multitude of elements as discloses by Asai.

- G) The examiner has improperly used Appellant's own teaching to construct the obviousness rejection and therefore has engaged in impermissible hindsight.
- H) The examiner has improperly ignored the appellant's claim limitation because the appellant's recite the swelling layer being deposited electrostatically onto cable components and this limitation is not taught in the prior art reference.
- I) The examiner cannot apply a 35 USC 102 anticipation rejection in a 35 USC 103 obviousness rejection.

With respect to argument A, the examiner respectfully submits that this rejection is moot in view of the withdrawal of the 35 USC 112, second paragraph.

With respect to argument B-E, the examiner respectfully traverses. Firstly, the examiner would respectfully state, that the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Osornio discloses a telephone lead in cable (Figs 1-3) for voice, data, and video (VVDL) transmission services (abstract), except the cable comprising a swelling layer surrounding said core electrostatically deposited as moisture protection element made of conventional poly (sodium acrylate) homopolymer compound and it is applied through

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electrostatic means forming a cover layer on the stranded pair during the extrusion of the flame resistant reinforced thermoplastic cover. Clearly, Osornio also teaches that he is concerned with protecting the interior components from exterior elements, such as water, because Osornio states that such exterior elements, such as water cause of the mature aging of the interior components of the cable (Page 2, paragraph 15). Asai teaches a water swellable material, which is cost efficient, has good wetting on and adhesion to many surfaces, and may be applied to cable components, such as wires, rods, tubes, and strength members, to provide the cable with water blocking properties (Col 1 & 3, lines 1-13 & 11-29). Based on the teachings of both Osornio and Asai, there clearly exist a motivation to incorporate the waterproofing filler as taught by Asai into the cable of Osornio because Osornio discloses that he is concerned with premature aging of the cable resulting from the intrusion of water and Asai teaches a filler component that is cost efficient, has good wetting on and adhesion to many surfaces, and may be applied to cable components, such as wires, rods, tubes, and strength members, to provide the cable with water blocking properties (Col 1 & 3, lines 1-13 & 11-29).

Secondly, there exist a reasonable expectation of success, since Asai specifies that the filler material may be utilized on interior components such as wires and strength members, both of which exist in the cable of Osornio, of which he is trying to waterproof (see Page 2, paragraph 15). Thirdly, all of the claimed elements are disclosed with the combination of Osornio and Asai. Therefore, a proper prima facie case of obviousness has been established, as all of the components to establish a prima facie case of obviousness, as disclosed by the MPEP are denoted. In light of the above comments,

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the examiner respectfully submits that there does exist a proper motivation for combining the teachings of Osornio and Asai, and that the 35 USC 103(a) rejection is proper.

With respect to argument F, the examiner respectfully traverses. It has been well settled that a selection of some from among many indiscriminately from the prior art, including a selection from a list of thousands, is a matter of obviousness for one of ordinary skill in the art as long as the prior art teaches the suitability of the selections. In re Susi, 440 F. 2d 442, 445, 169 USPQ 423, 425 (CCPA 1971); In re Lemin, 332 F. 2d 839, 841, 141 USPQ 814, 815 (CCPA 1964). It is now axiomatic that it is not necessary for finding of obviousness under 35 USC 103(a) that all the elements or teachings of one reference be fully combined with those of another reference. In re Griver, 354 F.2d 377, 381, 148 USPQ 197, 200 (CCPA 1966); In re Billingsley, 279 F.2d 689, 691, 126 USPQ 370, 372 (CCPA 1960). Rather, the proper inquiry under 103 is what the references, taken collectively, would have suggested to one of ordinary skill in the art. In re Keller, 642 F.2d 413, 426, 208 USPQ 871, 882 (CCPA 1981). In this case, Asai clearly teaches a water swellable material, which is cost efficient, has good wetting on and adhesion to many surfaces, and may be applied to cable components, such as wires, rods, tubes, and strength members, to provide the cable with water blocking properties (Col 1 & 3, lines 1-13 & 11-29). Based on the teachings of both Osornio and Asai, there clearly exist a motivation to incorporate the waterproofing filler as taught by Asai into the cable of Osornio because Osornio discloses that he is concerned with premature aging of the cable resulting from the intrusion of water and Asai teaches a

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filler component that is cost efficient, has good wetting on and adhesion to many surfaces, and may be applied to cable components, such as wires, rods, tubes, and strength members, to provide the cable with water blocking properties (Col 1 & 3, lines 1-13 & 11-29).

With respect to argument G, the examiner respectfully traverses. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With respect to argument H, the examiner respectfully traverses. Firstly, the examiner would like to state that the courts have been consistent on process limitations in product claims. Specifically, it has been held that the presence of process limitations in product claims, in which the product doesn't otherwise patentably distinguish over the prior art, cannot impart patentability to that product. 145 USPQ 656 (CCPA 1965) Secondly, clearly Asai teaches a water swellable material composition, which may be poly(sodium acrylate) homopolymer compound (Col 5, lines 9-15 & 26-40) and may be applied through electrostatic (i.e. laser) means on a cover layer on the stranded pair during the extrusion of the cover layer (Cols 8-9, 61-67 & 1-8, respectively). Therefore, the claim limitation of being "applied through electrostatic means" is clearly disclosed in

Asai. In light of the above, the examiner respectfully submits that the rejections stated above are proper and just.

With respect to argument I, the examiner respectfully traverses. Firstly, the examiner would like to state that no 35 USC 102 rejection has been made and therefore this argument seems moot. However, if the appellant is intending on referring to the case law that was cited in support of the rebuttal presented in the final rejection, it is respectfully submitted that this case law was cited to support the fact, that if a specific species of element(s) is recited in an abundance of elements, it still anticipates or renders a claim obvious. Specifically, the courts have been consistent that if a species (configuration) is clearly named, the species claimed is anticipated or rendered obviousness no matter how many other species are additionally named. Ex parte A, 17 USPQ2d 1716 (Bd. Pat. App & Inter. 1990). Further, it is axiomatic that it is not necessary for a finding of obviousness under 35 USC 103(a) that all of the elements or teachings of one reference be fully combined with those of another reference. In re Griver, 354 F.2d 377, 381, 148 USPQ 197, 200 (CCPA 1966): In re Billingsley, F.2d 689, USPQ 370, (CCPA 1960).

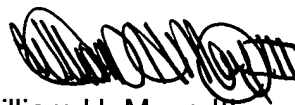
Based on the above comments, the examiner respectfully submits that the 35 USC 103(a) rejection of claims 33-56 are proper and just.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully Submitted,



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